



## **Coastal Protection and Restoration Authority of Louisiana**

### **Office of Coastal Protection and Restoration**

## **2011 Annual Inspection Report**

### **Pass Chaland to Grand Bayou Pass Barrier Shoreline Restoration**

State Project Number BA-35  
Priority Project List 11

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Plaquemines Parish

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## **I. Introduction**

The Pass Chaland to Grand Bayou Pass Barrier Shoreline Restoration (BA-35) project area is located between Pass Chaland and Grand Bayou Pass and separates Bay Joe Wise from the Gulf of Mexico. It is located in Plaquemines Parish.

## **II. Project Description and History**

The Pass Chaland to Grand Bayou Pass Barrier Shoreline Restoration Project (BA-35) consists of nourishing and rebuilding the shoreline with sediment to create a beach berm, dune, and a back barrier marsh platform. The wetlands, dune, and swale habitats within the project area have undergone substantial loss due to oil and gas activities, subsidence, sea-level rise, and marine and wind induced shoreline erosion. Marine processes acting on the abandoned deltaic headlands and barrier islands rework and redistribute the previously deposited sediment. In these areas along the shoreline, there are several locations where the shoreline has receded and decreased to a critical width that is susceptible to breaching during storms.

Construction of the Pass Chaland to Grand Bayou Pass Barrier Shoreline Restoration (BA-35) was completed in July 2009.

## **III. Inspection Purpose and Procedures**

The purpose of the annual inspection of the Pass Chaland to Grand Bayou Pass Barrier Shoreline Restoration (BA-35) is to evaluate the constructed project features to identify any deficiencies and prepare a report detailing the condition of project features and recommended corrective actions needed. Should it be determined that corrective actions are needed, the OCPR shall provide, in the report, a detailed cost estimate for engineering, design, supervision, inspection, and construction contingencies, and an assessment of the urgency of such repairs (O&M Plan). The annual inspection report also contains a summary of maintenance projects and an estimated projected budget for the upcoming three (3) years for operation, maintenance and rehabilitation. The three (3) year projected operation and maintenance budget is shown in Appendix C. A summary of past operation and maintenance projects completed since initial construction of the project can be found in Section II.

An aerial inspection of the Pass Chaland to Grand Bayou Pass Barrier Shoreline Restoration Project (BA-35) was held on May 13, 2011, by members of Coastal Engineering Consultants, Inc. Both NOAA and CPRA agreed to use the photos from this inspection to write this report. Photographs of this inspection are included in Appendix B of this report.

## **IV. Inspection Results**

### **Sand Fence**

Approximately 14,360 linear feet of sand fencing was installed during project construction. This structure appears to be holding up based on the photographic evidence (Photo #2).

### **Containment Dike**

The containment dike was not degraded upon demobilization from the construction site. During the period between demobilization and this inspection the dike has been slowly degrading due to natural processes. At least three gaps are visible in the photos from this inspection (Photos #3 and 4). We note that vegetation is present near these breaches, and water can be seen interior of the dikes near some of the breaches. It appears that limited hydrologic exchange is occurring between the marsh creation area and surrounding waters.

### **Settlement Plates**

The settlement plates were not visible from the air but are scheduled to be surveyed 2012.

### **Vegetative Plantings**

The rows of beach and dune vegetation are visible in the photos; however, it is unclear the status of the plants. It is unknown the effect this year's drought had on the vegetation and whether it has survived through the summer (Photos #2, 3, and 4).

## **V. Conclusions**

Based on the aerial inspection performed this year, this project is performing well. The vegetation is a concern based on these photographs. It will continue to be observed for the next inspection, as well as the need to gap the containment dike. The monitoring survey to be performed later this year should give us some insight into the elevation of the marsh platform and the need to create more exchange with Bay Joe Wise.

## **VI. Recommendations**

It is recommended not to perform any maintenance work at this time.

### **Immediate Repairs**

- None at this time.

### **Programmed Maintenance**

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Pass Chaland to Grand Bayou Pass Barrier Shoreline Restoration

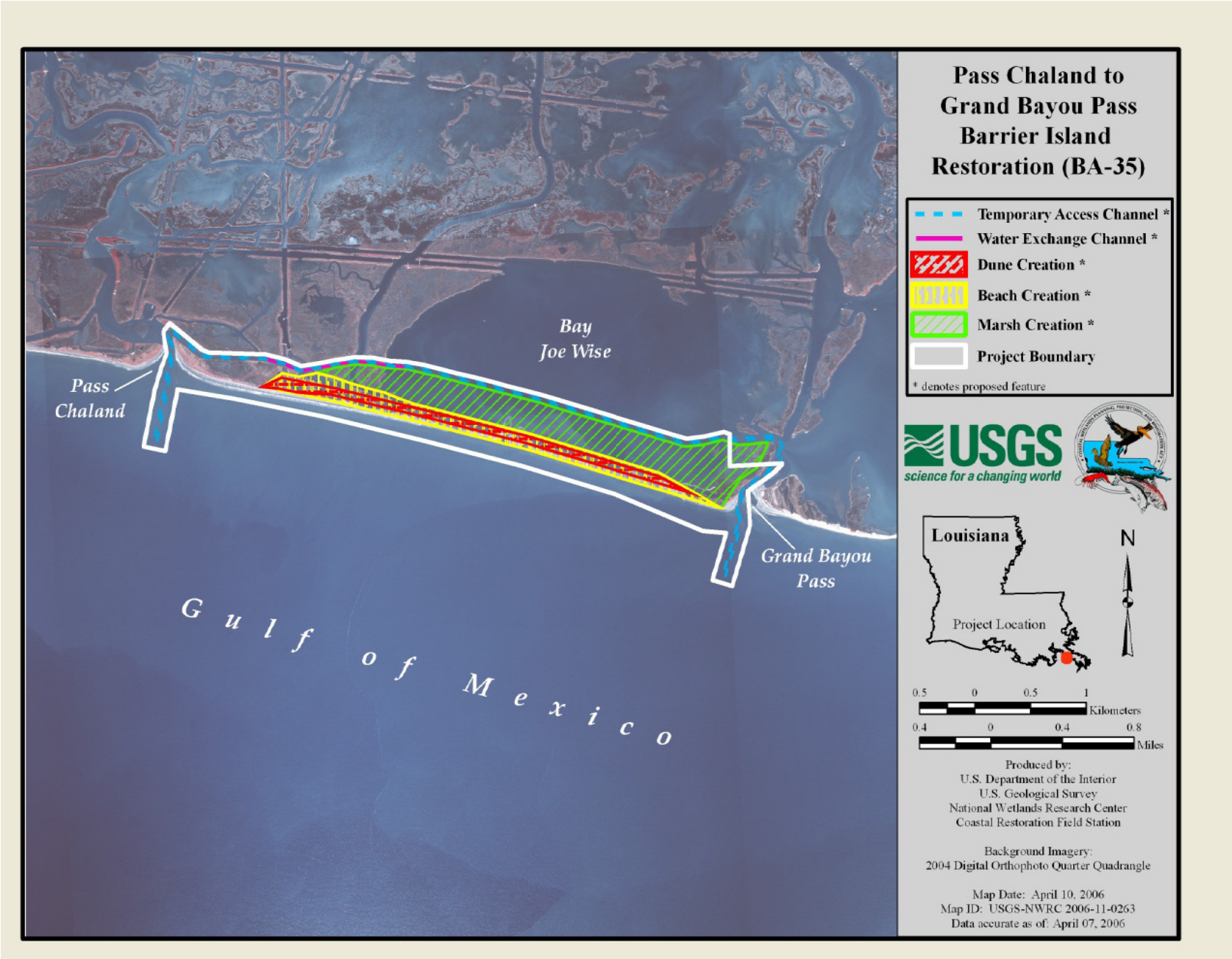
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- No Programmed Maintenance is recommended at this time.

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## **Appendix A**

### **Project Features Map**



## **Appendix B**

### **Photographs**





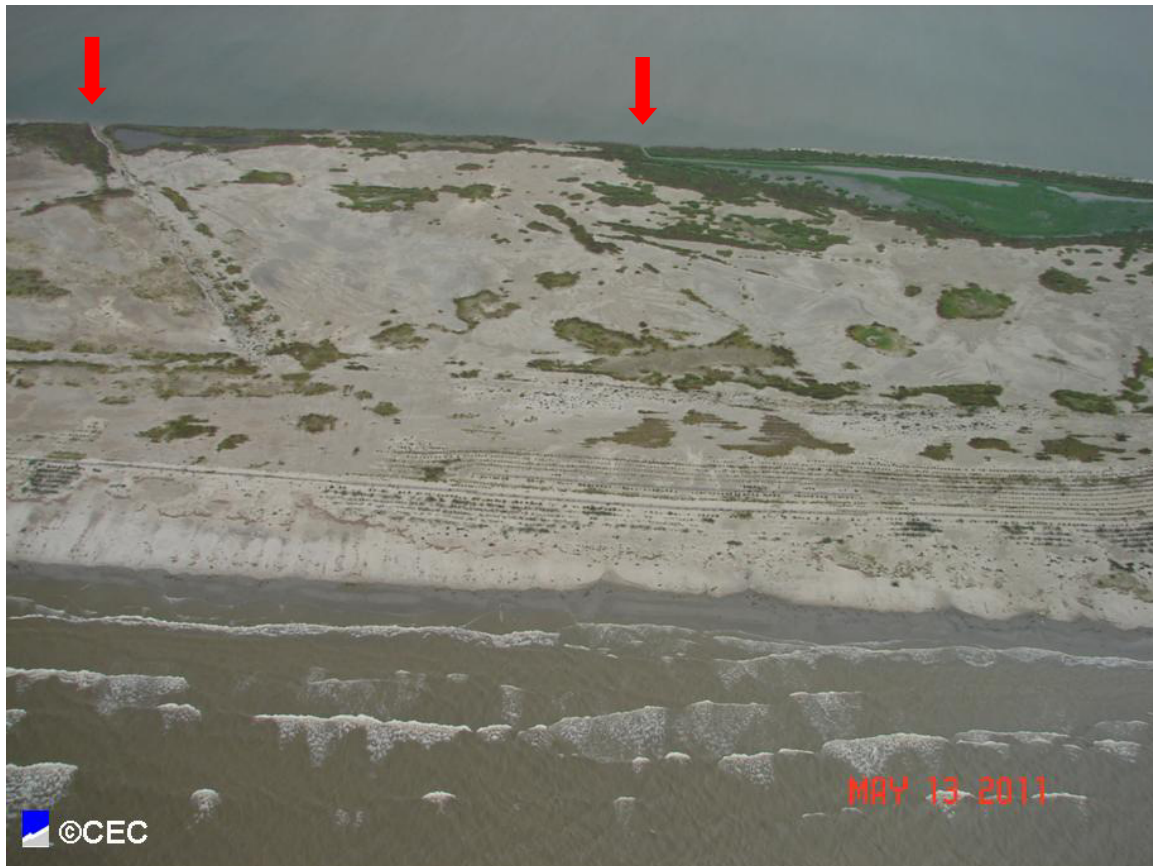
**Photo #1 – Project Area.**



**Photo #2 – Sand Fence and Vegetative Plantings.**



**Photo #3 – Western Dike Breach (arrow) and Degradation and Vegetative Plantings.**



**Photo #4 – Eastern Dike Breaches (arrows) and Vegetative Plantings.**

## **Appendix C**

### **Three Year Budget Projection**

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Pass Chaland to Grand Bayou Pass Barrier Shoreline Restoration  
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Pass Chaland to Grand Bayou Pass Barrier Shoreline Restoration (BA-35)

Federal Sponsor: NMFS  
Construction Completed : June 11, 2009  
PPL #11

	Year 0	Year - 1	Year -2	Year -3	Year -4	Year -5	Year -6	Year -7	Year -8	Year -9	Year -10	Year -11	Year -12	Year -13	Year -14	Year -15	Year -16	Year - 17	Year -18	Year -19	Project Life	Currently
Current Approved O&M Budget	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	Budget	Funded
State O&M	\$854,975	\$535,594	\$1,010,438	\$4,561	\$4,656	\$4,754	\$4,854	\$224,790	\$5,060	\$5,166	\$5,275	\$5,386	\$5,499	\$5,614	\$259,991	\$5,852	\$5,975	\$6,101	\$6,229	\$6,360	\$2,967,130	\$2,410,224
Corps Admin	\$2,356	\$819	\$836	\$853	\$871	\$890	\$908	\$927	\$947	\$967	\$987	\$1,008	\$1,029	\$1,050	\$1,072	\$1,095	\$1,118	\$1,141	\$0	\$0	\$18,874	\$5,735
Federal S&A	\$17,365	\$11,548	\$19,166	\$1,169	\$4,277	\$1,219	\$1,245	\$4,178	\$1,297	\$4,487	\$1,352	\$1,381	\$1,410	\$1,440	\$4,832	\$1,501	\$1,532	\$1,564	\$1,597	\$5,768	\$88,328	\$53,525
Total																					\$3,074,332	\$2,469,484

Projected O&M Expenditures																				Remaining Project Life	Current 3 year Request	
Maintenance Inspection			\$4,208	\$4,296	\$4,380	\$4,468	\$4,556	\$4,648	\$4,742	\$4,837	\$4,934	\$5,032	\$5,133	\$5,236	\$5,340	\$5,447	\$5,556	\$5,667	\$5,780	\$6,257	\$90,516	\$12,884
General Maintenance																					\$0	\$0
Structure Operations																					\$0	\$0
Corps Admin			\$836	\$853	\$871	\$890	\$908	\$927	\$947	\$967	\$987	\$1,008	\$1,029	\$1,050	\$1,072	\$1,095	\$1,118	\$1,141	\$0	\$0	\$15,699	\$2,560
Federal S&A			\$19,166	\$1,169	\$4,277	\$1,219	\$1,245	\$4,178	\$1,297	\$4,487	\$1,352	\$1,381	\$1,410	\$1,440	\$4,832	\$1,501	\$1,532	\$1,564	\$1,597	\$5,768	\$59,415	\$24,612
State S&A			\$195,959					\$75,846							\$87,138						\$358,943	\$195,959
Construction:			\$481,790					\$161,230							\$161,230						\$804,250	\$481,790
Professional Services:																					\$0	\$0
		E&D																			\$0	\$0
		Surveying		\$4,218																	\$4,218	\$4,218
		Construction Administration																			\$0	\$0
		Inspection																			\$0	\$0
Total	\$0	\$0	\$706,177	\$6,318	\$9,528	\$6,577	\$6,709	\$246,829	\$6,986	\$10,291	\$7,273	\$7,421	\$7,572	\$7,726	\$259,612	\$8,043	\$8,206	\$8,372	\$7,377	\$12,025	\$1,333,041	\$722,023

O&M Expenditures from COE Report	\$81,030	Current O&M Budget less COE Admin	\$2,463,749	Current Project Life Budget less COE Admin	\$3,055,458
State O&M Expenditures not submitted for in-kind credit	\$0	Remaining Available O&M Budget	\$2,382,719	Total Projected Project Life Budget	\$1,414,071
Total Estimated O&M Expenditures (as of August 2010)	\$81,030	Incremental Funding Request Amount FY12-FY14	-\$1,660,696	Project Life Budget Request Amount	-\$1,641,387

## **Appendix D**

### **Field Inspection Form**

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**MAINTENANCE INSPECTION REPORT CHECK SHEET**

Project No./Name: **(BA-35) Pass Chaland to Grand Bayou Pass Restoration**

Date of Inspection: 5/13/2011 Time: N/A

Structure No. n/a

Inspector(s): CEC

Structure Description: n/a

Water Level N/A

Type of Inspection: Annual

Weather Conditions: N/A

Item	Condition	Physical Damage	Corrosion	Photo #	Observations and Remarks
Sand Fencing	Good			2	Still intact and performing well.
Containment Dike	Good			3, 4	Gaps occurring naturally.
Settlement Plates	Good				Still in place.
Plantings	Good			2, 3, 4	Appear to be doing well.